or ex-family member...

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SOC 533 Presentation

Outline

Introduction

System Requirement Topics Covered

Questions

How likely your mother is still alive when you aging? How likely your grandmother is still alive when you aging? How likely your great-great-great grandmother is still alive when you aging? How likely your wife will die first?

Today's Special

Accounting the divorce...

Conclusion

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Required Documents

Otherwise, you will be banned entry to this program by Trump(?)

A computer

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- A 1-year Cohort Life table

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- More coming up if I can auto this process...

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Topics Being Covered

Topics Being Covered

• How likely your mother is still alive when you aging?

Topics Being Covered

- How likely your mother is still alive when you aging?
- How likely your husband/wife will die before you?

Topics Being Covered

- How likely your mother is still alive when you aging?
- How likely your husband/wife will die before you?
- How likely the marriage dissolutes t years after the marriage?

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How likely your mother will be still alive when you are at age *a*?

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• When a girl at her age a, her mother born her at the age of x, at that time the likelihood of survival is $\ell(x)$, and the mortality, m(x), the population exponential growth rate is r,

How likely your mother will be still alive when you are at age *a*?

- When a girl at her age a, her mother born her at the age of x, at that time the likelihood of survival is $\ell(x)$, and the mortality, m(x), the population exponential growth rate is r,
- The equation is the following:

$$M_1(a)^* = \int_{\alpha}^{\beta} \frac{\ell(x+a)}{\ell(x)} e^{-rx} \ell(x) m(x) dx$$



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How likely your grandmother will be still alive when you are at age a?

The likelihood of a girl aged a has a living grandmother under given regime of mortality and fertility is?

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The likelihood of a girl aged a has a living grandmother under given regime of mortality and fertility is?

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How likely your grandmother will be still alive when you are at age *a*?

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- When a girl at her age a, her mother born her at the age of x, at that time the likelihood of survival is $\ell(x)$, and the mortality, m(x), the population exponential growth rate is r,
- The equation is the following:

$$M_2(a)^* = \int_{\alpha}^{\beta} M_1(x+a) \frac{\ell(x+a)}{\ell(x)} e^{-rx} \ell(x) m(x) dx$$

How likely your great-grandmother will be still alive when you are at age a?

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$$M_3(a)^* = \int_{\alpha}^{\beta} M_2(x+a) \frac{\ell(x+a)}{\ell(x)} e^{-rx} \ell(x) m(x) dx$$

Outline

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How likely your great-great grandmother is still alive when you aging?



How likely your very great grandmother will be still alive when you are at age a?

The likelihood of a girl aged *a* has a living great-great-great-grandmother under given regime of mortality and fertility is?

How likely your very great grandmother will be still alive when you are at age a?

The likelihood of a girl aged a has a living great-great-great-grandmother under given regime of mortality and fertility is?

• So, we can conclude that, by having n is how many "great: do you want to put before the "mother".

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• This calculation might only be helpful when we are working with turtle families or when human age expectancy e > 300

Pause Pause Pause



Figure: Yikes!

Outline

Questions

How likely your grandmother is still alive when you aging?

How likely your wife will die first?

Questions

How likely your wife will die first?

If the husband is *x* years old, the wife is *y* years old. Given we don't care if they divorce, what is the likelihood of the wife going to die first?

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Then...



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 The probability of the marriage dissolving at the time t either by death of the male partner or divorce is:

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 where the dissolving is caused by either the death of the male partner or divorce



Conclusion

What to do next?

• Then it is just three functions:

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- Any Suggestions?

That's All!!

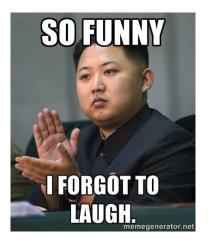


Figure: Laughter?